

Rocky Reach Spillway Gates



Tainter gates



Folsom Dam – 1995



Changes at Rocky Reach since 1995

- Gate inspection & maintenance program
- Testing of gates, controls, power supplies

Follow-up on results



Strain gage testing program evaluated stresses from:

- Reservoir load,
- Trunnion friction, and
- Secondary effects
 - Sweep
 - Camber
 - Bearing alignment



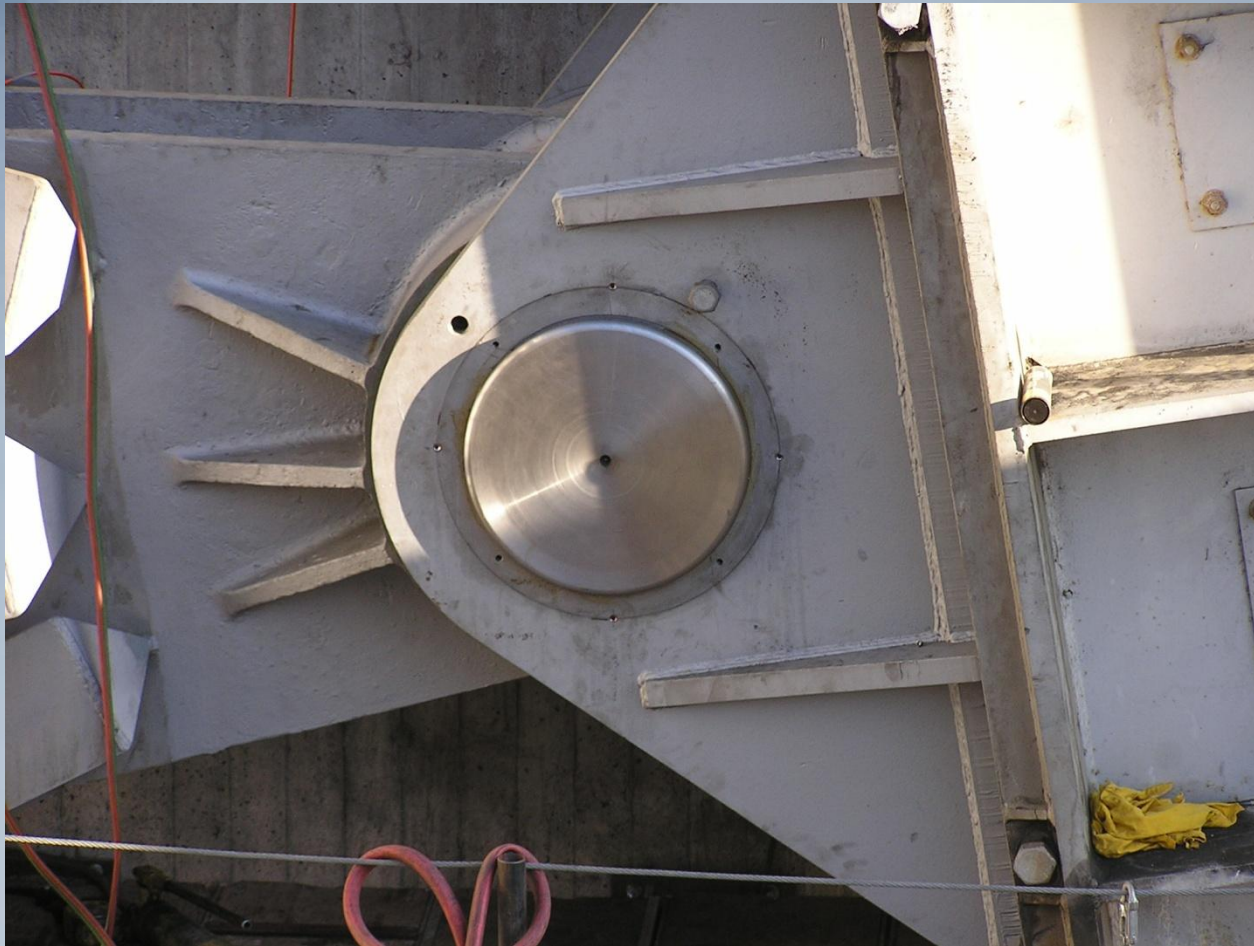
Trunnion bearing replacement



Trunnion bearing replacement



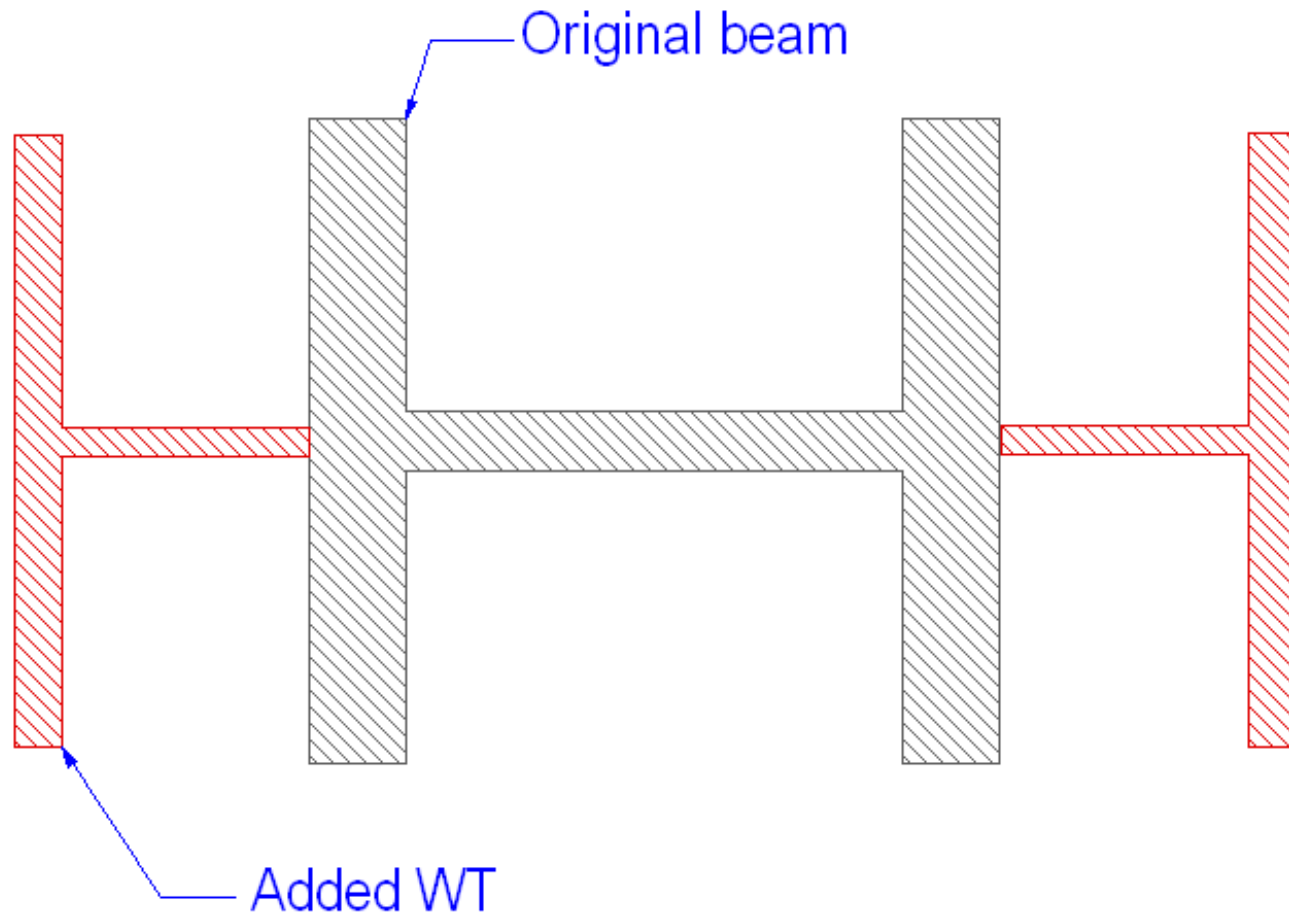
Trunnion bearing replaced



Arm strengthening – added WTs



Arm beam cross-section



WT being placed



WTs fitted to arm beam



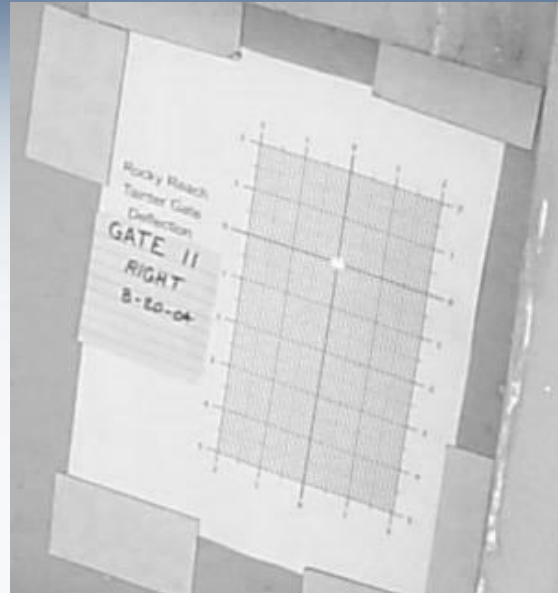
Arm with added WTs



Bearing monitoring system



Alignment laser



Target grid is installed on the gate skin plate with magnets.



Target and video camera set-up.

Laser mounted on trunnion casting.

Summary – Spillway Gate Reliability

- Gate maintenance is a high priority
- Well-defined testing program – has shown results
- Developing a better way to monitor trunnion bearings
- We're still working to understand our gates better.